

# Mid-Columbia Salmon Recovery Region Plan<sup>1</sup>



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## VISION

Yakima Basin communities have restored the Yakima River basin sufficiently to support self-sustaining and harvestable populations of indigenous fish and wildlife while enhancing the existing customs, cultures, and economies in the basin. Decisions that continuously improve the river basin ecosystems are made in an open and cooperative process that respects different points of view and varied statutory responsibilities and benefits current and future generations

## GOAL

Ensure long-term persistence of viable populations of naturally produced steelhead and bull trout across their native range

**//** The Board's vision that implementing the plan will be inclusive, transparent, collaborative, cooperative, and voluntary, is borne of the conviction that only a process based on these attributes can be successful. **//**

**YAKIMA SUBBASIN FISH  
AND WILDLIFE  
PLANNING BOARD**



**Plan Timeframe**  
10-30 years



**Estimated Cost**  
\$160 million



**Actions Identified  
to Implement Plan**  
153



**Status**  
Habitat portion of plan  
submitted  
to NMFS/USFWS  
10/2005

<b>Human Population</b> 431,700	<b>Counties</b> Benton, Kittitas, Yakima, parts of Chelan and Klickitat	<b>Treaty Tribes</b> Yakama Nation	<b>Listed Fish</b> Steelhead and bull trout <sup>2</sup>	<b>Regional Recovery Organization</b> Yakima Subbasin Fish and Wildlife Planning Board
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## MAJOR FACTORS LIMITING RECOVERY

- ▶ Hydropower system mortality on Columbia River
- ▶ Reduced stream flows in tributaries
- ▶ Impaired passage in tributaries
- ▶ Excessive sediment
- ▶ Degraded water quality
- ▶ Altered channel morphology
- ▶ Degraded riparian habitat

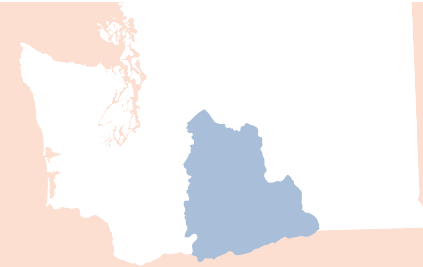
## KEY ACTIONS RECOMMENDED TO RECOVER FISH

### January 2006 to June 2007

- ▶ Improve fish passage
- ▶ Restore stream flows
- ▶ Restore habitat
- ▶ Reintroduce indigenous species
- ▶ Assess surface-ground-water connections
- ▶ Evaluate rainbow trout-steelhead interactions

### Long Term

- ▶ Protect areas with high ecological integrity and natural ecosystem processes
- ▶ Maintain connectivity throughout range of listed fish
- ▶ Restore and maintain suitable stream flows
- ▶ Protect and restore water quality
- ▶ Monitor effectiveness of actions



<sup>1</sup> All H recovery plan integration is underway, including focus on out-of-sub-basin impacts. This process, involving the NMFS, Regional Board, WDFW, and GSRO is expected to be complete no later than June 2006. Roll up of entire ESU (Oregon portions) underway.

<sup>2</sup> USFWS previously published a bull trout recovery plan (2006). The status of bull trout is currently under review and is expected to be complete by early 2006. At that time, USFWS will work with the Regional Board, WDFW, GSRO to incorporate elements of the State's strategy and the Board's plan into the federal plan.

## Mid-Columbia Salmon Recovery Region Steelhead



### Mid-Columbia Region Steelhead Evolutionarily Significant Unit (ESU) and Context Area

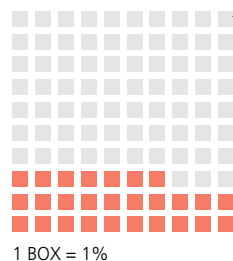
-  ESU in Washington
-  Major Population Group (MPG)
-  In ESU, Not in Plan
-  ESU in Oregon

## Steelhead Spawner Abundance

Population	Present	Goal
Satus	454	1,000
Toppenish	549	1,000
Naches	412	1,500
Upper Yakima	83	2,250
Total	1,498	5,750

### Total Spawner Abundance Goal 5,750 (100%)

This is the number of adults needed on the spawning grounds to achieve recovery. Wherever possible it is expressed in natural spawner numbers.



### Total Spawner Abundance Present 1,498 (26% of Goal)

This is expressed as an average from 1993 to 2004.

## Steelhead Productivity

Population	Present	Goal
Satus	1.0	1.3
Toppenish	.6	1.3
Naches	.6	1.2
Upper Yakima	.6	1.2

**Productivity:** Population growth rate. This is how many fish return for each fish that spawns. A population must have productivity greater than 1 to increase over time.



SALMON RECOVERY FUNDING BOARD

### Coleman Creek Fish Barrier Removal and Bridge Installation





# Steelhead

## Mid-Columbia

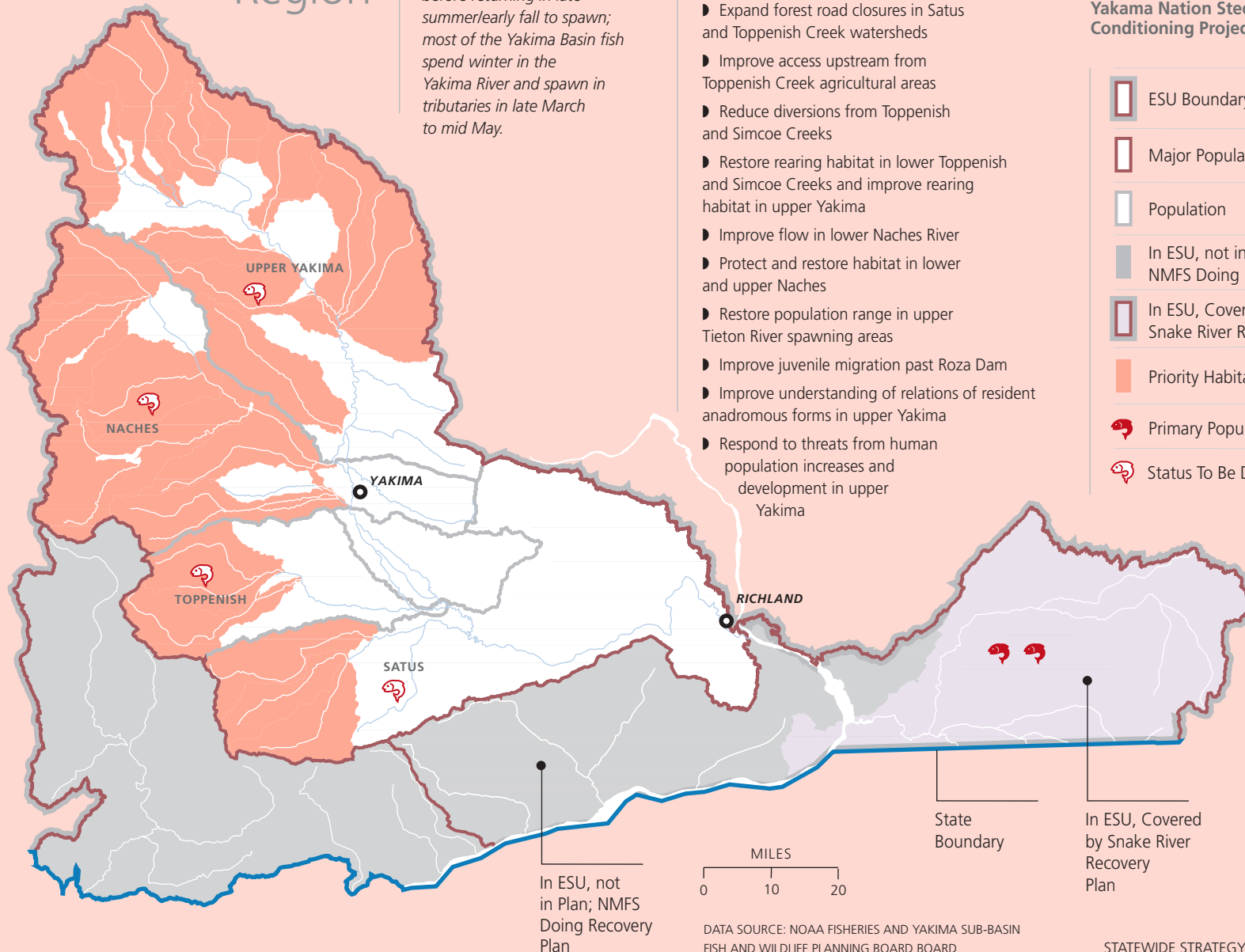
### Salmon Recovery Region



#### STEELHEAD

*Oncorhynchus mykiss*

Live 4-7+ years; typically spend 1-3 years in ocean before returning in late summer/early fall to spawn; most of the Yakima Basin fish spend winter in the Yakima River and spawn in tributaries in late March to mid May.



YAKIMA NATION



#### Yakima Nation Steelhead Kelt Conditioning Project